

[If adopted, this would be a new regulation]

[Approved by the Committee of the Whole on January 13, 2005, for Public Review]

[Changes to Draft #2 (the proposed regulation) are redlined and double underlined]

REGULATION 5.21 Environmental Acceptability for Toxic Air Contaminants

Air Pollution Control District of Jefferson County

Jefferson County, Kentucky

Relates To: KRS Chapter 77 Air Pollution Control

Pursuant To: KRS Chapter 77 Air Pollution Control

Necessity and Function: KRS 77.180 authorizes the Air Pollution Control Board to adopt and enforce all orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation establishes the criteria for determining the environmental acceptability of emissions of toxic air contaminants.

SECTION 1 Definitions

Terms used in this regulation that are not defined in this regulation shall have the meaning given to them in Regulation 1.02 *Definitions* or Regulation 5.01 *General Provisions*.

1.1 “Best available technology for toxics” or “T-BAT” means an emission standard that reflects the maximum degree of toxic air contaminant (TAC) emission and risk reduction that the District determines can be reasonably achieved by the process or process equipment, taking into account energy, environmental, and economic impacts and health and welfare benefits. In determining T-BAT, the District shall consider work practices, raw material substitutions, production limitations including limitations on the hours of operation, alternative processes and process design characteristics, air pollution control equipment, and pollution prevention measures, equipment maintenance measures (including leak detection and repair), and upset condition prevention measures.

1.2 “Environmentally acceptable” or “environmental acceptability” (EA) means the ambient concentration, including an averaging time frame, of a TAC, or the sum of the ambient concentrations, including an averaging time frame, of multiple TACs, that is less than or equal to the ambient goals and standards established in this regulation (EA goals). These EA goals and standards are collectively referred to as “EA levels.”

1.3 “Existing process or process equipment” means, for the provisions of this regulation, one of the following:

1.3.1 A process or process equipment, for which the application for a construction permit was received by the District before January 14, 2005, or for which the construction permit was issued by the District before [insert the effective date of this regulation] did not qualify under any of the circumstances described in section 1.5, that involves the potential emission of a Category 1 or 2 TAC from a Group 1 or 2 stationary source; excluding the process and process equipment for the initial transfer of gasoline into the fuel tank of a new motor vehicle at an automobile or truck assembly plant, excluding the potential emission of a Category 2 TAC if the owner or operator did not report the emission of that TAC to the EPA for the 2002 Toxics Release Inventory Program, or

1.3.2 A process or process equipment located at a permitted stationary source, for which the application for a construction permit was received by the District before January 14, 2005, or for which the construction permit was issued by the District before [insert the effective date of this regulation], that involves the potential emission of a TAC

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- for which the District determines that the emissions do not comply with the general duty clause of Regulation 5.01 Section 3.
- 1.4 “Hazard quotient” or “HQ” means the ratio between the concentration of a TAC and the benchmark ambient concentration for noncarcinogenic effects for that TAC (BAC_{NC}). A hazard quotient is a unitless numerical value.
- 1.5 “Industrial property” means property on which the activities are industrial in nature, for example, manufacturing, utilities, industrial research and development, or petroleum bulk storage. This term does not include a farm or a commercial establishment.
- 1.6 “New or modified process or process equipment” means, for the provisions of this regulation, a process or process equipment for which the District has received a construction permit application that meets one of the following circumstances:
- 1.6.1 A process or process equipment, for which the application for a construction permit was received by the District on or after January 14, 2005, unless the construction permit was issued by the District before [insert the effective date of this regulation], that The application involves the potential emission of a Category 1; 2, 3, or 4 TAC from a Group 1 or 2 stationary source and the construction permit is issued by the District on or after [insert the effective date of this regulation], or
- 1.5.2 The application involves the potential emission of a Category 3 or 4 TAC from a Group 1 or 2 stationary source, but does not involve the potential emission of a Category 1 or 2 TAC, and an administratively complete construction permit application was received by the District on or after [insert the effective date of this regulation], unless the construction permit application had been received by the District before June 30, 2004, or
- 1.6.2 The application involves the potential emission of a TAC from a permitted stationary source, for which the application for a construction permit was received by the District on or after January 14, 2005, unless the construction permit was issued by the District before [insert the effective date of this regulation], and the District determines that the emission would not comply with the general duty clause of Regulation 5.01 Section 3.
- 1.7 “Permitted stationary source” means a stationary source that is subject to the permit requirements of Regulation 2.03 section 1.1 or 1.2.
- 1.8 “Source sector” means the general grouping of sources of air contaminants used by the District for developing anthropogenic emissions inventories. These source sectors are as follows:
- 1.8.1 Point source - industrial or commercial stationary source that is subject to the permit requirements in Regulation 2.03 section 1.1 or 1.2 (permitted stationary source).
- 1.8.2 Area source - non-permitted commercial stationary source or other anthropogenic source of emissions that is not included in section 1.7.1, 1.7.3, or 1.7.4.
- 1.8.3 Mobile source - motorized vehicle that is registered for use on the public roads and highways.
- 1.8.4 Nonroad mobile source - motorized vehicle that is not registered for use on the public roads and highways or any other equipment with a fossil fuel-fired engine that is not a point source.

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SECTION 2 Ambient Goals and Standards for Environmental Acceptability for Toxic Air Contaminants

2.1 The risk, as determined pursuant to the procedures in section 2.2, resulting from the allowed emissions of TACs, excluding de minimis emissions and the Category 3 and 4 TAC emissions for which the allowed emissions were approved pursuant to section 3.1.2.2, from new or modified processes or process equipment, as defined in section 1.65, shall not exceed the ambient goals levels of environmental acceptability (EA goalslevels) for TACs in section 2.2, except as provided in section 2.3.

2.2 The following table establishes the EA goals for TACs for new or modified processes or process equipment:

	Applicable Source Sector	Applicable Process or Process Equipment ¹	Applicable TACs	Goal or Standard	EA <u>GL</u> _C ^{2,3} Risk (×10 ⁻⁶) ⁶	EA <u>GL</u> _{NC} ^{4,5} HQ
2.2.1	Point source	Individual stationary source, individual new or modified P/PE	Individual TAC	<u>Goal</u>	1.0	<u>1.0</u> <u>HQ = 0.20</u>
2.2.2	Point source	Individual stationary source, all new or modified P/PE	Individual TAC	<u>Goal</u>		<u>1.0</u> <u>HQ = 0.38</u>
2.2.3	Point source	Individual stationary source, all new or modified P/PE	Total for all applicable TACs	<u>Goal</u>	3.8	

Notes for section 2.2 (also applicable to section 2.5):

¹ Process or process equipment is abbreviated P/PE.

² R_C, or the risk, in units of risk in one million, from an individual TAC that is determined to be a carcinogen, as applicable to section 2.2.1 (or section 2.5.1), means the cancer risk from an individual TAC from an individual process or process equipment, derived from the following equation:

$$R_C = \frac{\text{Maximum concentration}_{i,j}}{BAC_{C_i}} \quad [\text{Equation 1}]$$

Where: i = an individual carcinogenic TAC, from
 j = an individual new or modified process or process equipment,
 BAC_{C_i} = the benchmark ambient concentration for that carcinogenic TAC, as determined pursuant to Regulation 5.20 Section 3, and
 Maximum concentration = the highest concentration of a TAC in the ambient air, taking into account the applicable averaging time frame for the TAC, as determined pursuant to Regulation 5.22

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Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant.

- ³ R_C , or the risk, in units of risk in one million, from all TACs that are determined to be carcinogens, as applicable to section 2.2.3 (or section 2.5.3), means the sum of the cancer risks at a single point from all individual TACs from all applicable individual processes or process equipment, derived from the following equation:

$$R_C = \sum_{i=1}^n \sum_{j=1}^m \frac{\text{Maximum concentration}_{ij}}{BAC_{C_i}} \quad [\text{Equation 2}]$$

Where: i = an individual carcinogenic TAC, from
 j = an individual process or process equipment,
 n = the total number of carcinogenic TACs to be included in the demonstration of environmental acceptability,
 m = the total number of processes or process equipment from which carcinogenic TAC "i" may be emitted,
 BAC_{C_i} = the benchmark ambient concentration for that carcinogenic TAC, as determined pursuant to Regulation 5.20 Section 3, and
 Maximum concentration = the concentration of a toxic air contaminant in the ambient air at the point of maximum risk of all applicable "i" emissions from all applicable "j" processes or process equipment, taking into account the applicable averaging time frame for the TAC, as determined pursuant to Regulation 5.22.

- ⁴ R_{NC} , or the risk from the noncarcinogenic effects of an individual TAC, as applicable to section 2.2.1 (or 2.5.1), means the hazard quotient of the TAC from an individual process or process equipment, derived from the following equation:

$$R_{NC} = HQ_i = \frac{\text{Maximum concentration}_{ij}}{BAC_{NC_i}} \quad [\text{Equation 3}]$$

Where: i = an individual TAC, from
 j = an individual process or process equipment,
 BAC_{NC} = the benchmark ambient concentration for the noncarcinogenic effects of the TAC, as determined pursuant to Regulation 5.20 Section 4, and
 Maximum concentration = the highest concentration of a toxic air contaminant in the ambient air, taking into account the applicable averaging time frame for the TAC, as determined pursuant to Regulation 5.22.

- ⁵ R_{NC} , or the risk from the noncarcinogenic effects of an individual TAC from all applicable individual processes or process equipment, as applicable to section 2.2.2 (or 2.5.2), means the hazard quotient of the TAC at a single point from all applicable processes or process equipment, derived from the following equation:

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$$R_{NC} = HQ_i = \sum_{j=1}^m \frac{\text{Maximum concentration}_{ij}}{BAC_{NC_i}} \quad [\text{Equation 4}]$$

Where: i = an individual TAC, from
 j = an individual process or process equipment,
 m = the total number of processes or process equipment from which TAC "i" may be emitted,
 BAC_{NC} = the benchmark ambient concentration for the noncarcinogenic effects of the TAC, as determined pursuant to Regulation 5.20 Section 4, and
 Maximum concentration = the concentration of a toxic air contaminant in the ambient air at the point of maximum concentration of the "i" emissions from all applicable "j" processes or process equipment, taking into account the applicable averaging time frame for the TAC, as determined pursuant to Regulation 5.22.

⁶ The EA~~GL~~_C Risk is in units of risk in one million.

2.3 Modification of the EA goals.

2.3.1 After providing an opportunity for public review and comment, the District may approve a written request from the owner or operator of a new or modified process or process equipment to exceed one or more of the EA goals in section 2.2, provided that the applicable EA goals in sections 2.5.2 and 2.5.3 are met or a modification of the applicable EA goals in sections 2.5.2 and 2.5.3 is also approved by the District pursuant to the modification process in section 2.6.:

2.3.1.1 One or both of the EA goals in section 2.2.1, provided that the applicable EA goals in sections 2.2.2 and 2.2.3 are met, and

2.3.1.2 One or both of the EA goals in sections 2.2.2 and 2.2.3, provided that the applicable EA standards in sections 2.5.2 and 2.5.3 are met.

2.3.2 As part of the request pursuant to section 2.3.1, the owner or operator shall submit a demonstration that the process or process equipment complies with, or, pursuant to a proposed plan and schedule, will comply with, each element of T-BAT. that is listed in section 1.1 has been considered and that The demonstration shall document that all practices and measures potentially applicable to the process or process equipment, including technology transfer, from readily available information from any jurisdiction and other sources of air pollution control information, including, but not limited to, the New and Emerging Environmental Technologies (NEET) Clean Air Technologies Database, available on the Internet at "http://neet.rti.org", have been reviewed and considered.

2.3.3 In making the determination whether to approve the request, If the District shall determines that the T-BAT requirement of section 2.3.2 is met, or will be met in a timely manner, then the District shall, consistent with section 2.3.1, approve the request for modification of the applicable EA goals in section 2.2.consider, among other factors, whether, and the extent to which, the allowed emissions from the process or process equipment reflect the application of the best available technology for toxics (T-BAT).

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- 193 The District shall also consider relevant, including both current and up to 25 years in the
 194 future, the demographic and land use factors.
 195 2.3.4 If the District approves a request to exceed one or more of the EA goals in section 2.2,
 196 then any resulting emission standard and any approved plan and schedule for compliance
 197 with the T-BAT requirement shall be an enforceable requirement of the applicable
 198 District permit for the affected process and process equipment.
 199 2.4 The risk, as determined pursuant to the procedures in section 2.5, resulting from the allowed
 200 emissions of TACs, as specified in sections 2.4.1 to 2.4.3, excluding de minimis emissions,
 201 from processes and process equipment at a point source, as specified in sections 2.4.1 to
 202 2.4.3, shall not, taking into account the compliance schedule for the various categories of
 203 TACs in section 4.5, exceed the EA goals levels for TACs in section 2.5 as follows, except
 204 as provided in sections 2.6 and 2.7:
 205 2.4.1 The EA goals in section 2.5.1 are applicable to Category 1 and 2 TACs from existing
 206 processes and process equipment,
 207 2.4.2 The EA goals standards in sections 2.5.2 and 2.5.3 are applicable to Category 1 and 2
 208 TACs from all existing processes and process equipment and Category 1, 2, 3, and 4
 209 TACs from all new or modified processes or process equipment, excluding the Category
 210 3 and 4 TAC emissions for which the allowed emissions were approved pursuant to
 211 section 3.1.2.2, and
 212 2.4.3 The EA goals and standards in section 2.5 are applicable to a process or process
 213 equipment for which the District determines that the emissions of a TAC do not comply
 214 with the general duty clause of Regulation 5.01 Section 3.
 215 2.5 The following table establishes the EA goals levels for TACs for processes and process
 216 equipment, as specified in sections 2.4.1 to 2.4.3, at a point source:

	Applicable Source Sector	Applicable Process or Process Equipment ¹	Applicable TACs	<u>Goal or Standard</u>	EA <u>GL</u> _C ^{2,3} Risk ($\otimes 10^{-6}$) ⁶	EA <u>GL</u> _{NC} ^{4,5} HQ
217	2.5.1	Point source	Individual stationary source, individual existing P/PE	Individual TAC	<u>Goal</u>	1.0 <u>HQ = 0.20</u>
218	2.5.2	Point source	Individual stationary source, all P/PE, including new or modified P/PE	Individual TAC	<u>Standard</u>	1.0 <u>HQ = 0.75</u>
219	2.5.3	Point source	Individual stationary source, all P/PE, including new or modified P/PE	Total for all applicable TACs	<u>Standard</u>	7.5

220 Notes for section 2.5: See the notes for section 2.2.

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2.6 Modification of the EA goals.

2.6.1 After providing an opportunity for public review and comment, the District may approve a written request from the owner or operator of a process or process equipment subject to the EA goals in section 2.5.1 to exceed one or more both of the those EA goals in section 2.5, provided that the corresponding EA standards in sections 2.5.2 and 2.5.3 are met.

2.6.2 As part of the request pursuant to section 2.6.1, the owner or operator shall submit the following as applicable:

2.6.2.1 For a request to exceed any of the EA goals in section 2.5, a demonstration that the process or process equipment complies with, or, pursuant to a proposed plan and schedule, will comply with, each element of T-BAT, that is listed in section 1.1 has been considered and that The demonstration shall document that all practices and measures potentially applicable to the process or process equipment, including technology transfer, from readily available information from any jurisdiction and other sources of air pollution control information, including, but not limited to, the (NEET) Clean Air Technologies Database, available on the Internet at "http://neet.rti.org", have been reviewed and considered, and;

2.6.2.2 For a request to exceed an EA goal in section 2.5.2 or 2.5.3, an evaluation of relevant, including both current and up to 25 years in the future, demographic and land use factors. Relevant factors shall include, but are not limited to, the frequency and duration of public access to the area for which the EA goal is exceeded, the nature, type, and use of the area, and how each relevant factor may likely change over the 25-year period of time. In evaluating future changes, available land use, population, and transportation horizon projections shall be included.

2.6.3 In making the determination whether to approve the request, the District shall determine whether the T-BAT requirement of section 2.6.2.1 is met, or will be met in a timely manner, and shall, if applicable, consider, among other factors, whether, and the extent to which, the allowed emissions from the process or process equipment reflect the application of the best available technology for toxics (T-BAT). The District shall also consider relevant, including both current and up to 25 years in the future, the demographic and land use factors information required by section 2.6.2.2. If the District determines that the T-BAT requirement is met, or will be met in a timely manner, and, if applicable, considering the information required by section 2.6.2.2, determines that the resulting allowable emissions would provide an ample margin of safety to the exposed population, then the District shall approve a modification of the applicable EA goal not to exceed a Hazard Quotient, pursuant to section 2.5.2, of 3.0, or a risk, pursuant to section 2.5.3, of 100.

2.6.4 If the District approves a request to exceed one or more of the EA goals in section 2.5, then the approved level of the modified EA goal, or a lesser level as determined appropriate by the District, taking into account other affected processes and process equipment, shall be added to the applicable EA goal in section 2.5. If the District approves a request to exceed one or both of the EA goals in sections 2.5.2 and 2.5.3, then the approved level of the modified EA goal, or a lesser level as determined appropriate by the District, taking into account other affected stationary sources, shall be added to

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the applicable EA goal in section 2.8. Any resulting emission standard and any approved plan and schedule for compliance with the T-BAT requirement shall be an enforceable requirement of the applicable District permit for the affected process and process equipment.

2.7 The owner or operator of a new or modified process or process equipment, except for a new or modified process or process equipment that was approved by the District to exceed one or both of the EA goals in section 2.2.2 or 2.2.3 pursuant to the provisions of section 2.3, is not required to demonstrate compliance with the EA goals standards in sections 2.5.2 or 2.5.3 until required to do so pursuant to the provisions of section 4.1, taking into account the schedule for the various categories of TACs.

2.8 The EA goals for TACs, applicable to the risk, as determined pursuant to the procedures in section 2.8, resulting from the allowed emissions from existing processes and process equipment, as defined in section 1.3, and new or modified processes and process equipment, as defined in section 1.65 (including the Category 3 and 4 TAC emissions for which the allowed emissions were approved pursuant to section 3.1.2.2), excluding de minimis emissions, are as follows:

		Applicable Source Sector	Applicable Source of Emission	Applicable TACs	<u>Goal</u> or <u>Standard</u>	<u>EAGL_C</u>¹ Risk ($\otimes 10^{-6}$)³	<u>EAGL_{NC}</u>² HQ
281	2.8.1	Point source	Applicable processes and process equipment	Individual TAC	<u>Goal</u>		<u>1.0</u> <u>HQ = 1.00</u>
282	2.8.2	Point source	Applicable processes and process equipment	Total for all applicable TACs	<u>Goal</u>	10.0	

Notes for section 2.8:

¹ R_C , or the risk, in units of risk in one million, from all TACs that are determined to be carcinogens, as applicable to section 2.8.2, means the sum of the cancer risks at a single point from all individual TACs from all applicable stationary sources, derived from the following equation:

$$R_C = \sum_{i=1}^n \sum_{j=1}^m \frac{\text{Maximum concentration}_{ij}}{BAC_{C_i}} \quad [\text{Equation 5}]$$

Where: i = an individual carcinogenic TAC, from
j = an individual source of emission,
n = the total number of carcinogenic TACs to be included in the demonstration of environmental acceptability,
m = the total number of sources of emission from which

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carcinogenic TAC “i” may be emitted,
 BAC_{Ci} = the benchmark ambient concentration for that carcinogenic
 TAC, as determined pursuant to Regulation 5.20 Section 3,
 and
 Maximum concentration = the concentration of a toxic air
 contaminant in the ambient air at the point of maximum risk
 of all applicable “i” emissions from all applicable “j” sources
 of emission, taking into account the applicable averaging time
 frame for the TAC, as determined pursuant to Regulation
 5.22.

² R_{NC} , or the risk from the noncarcinogenic effects of an individual TAC, as applicable to
 section 2.8.3, means the hazard quotient of the TAC from all applicable stationary
 sources, derived from the following equation:

$$R_{NC} = HQ_i = \sum_{j=1}^m \frac{\text{Maximum concentration}_{ij}}{BAC_{NC_i}} \quad [\text{Equation 6}]$$

Where: i = an individual TAC, from
 j = an individual source of emission,
 m = the total number of sources or emission from which TAC
 “i” may be emitted,
 BAC_{NC} = the benchmark ambient concentration for the
 noncarcinogenic effects of the TAC, as determined
 pursuant to Regulation 5.20 Section 4, and
 Maximum concentration = the concentration of a toxic air
 contaminant in the ambient air at the point of maximum
 concentration of the “i” emissions from all applicable “j”
 sources of emission, taking into account the applicable
 averaging time frame for the TAC, as determined
 pursuant to Regulation 5.22.

³ The EA_{GL} Risk is in units of risk in one million.

2.9 The EA goals of sections 2.2, 2.5, and 2.8 applicable to the ambient air on industrial property shall be increased by a factor of 4.2 for the carcinogenic risks (EA_{G_c}) and by a factor of 3 for the noncarcinogenic risks ($EA_{G_{NC}}$). The EA goals of sections 2.2, 2.5, and 2.8 applicable to the ambient air on public roadways shall be increased by a factor of 10 for the carcinogenic risks (EA_{G_c}) and by a factor of 3 for the noncarcinogenic risks ($EA_{G_{NC}}$). These increases in the EA goals shall have no effect on the EA goals applicable to any other location. These increases in the EA goals shall have no effect on any approved modified EA goal pursuant to section 2.6.

2.10 If the risk, as determined pursuant to the procedures in section 2.2, 2.5, or 2.8, resulting from the allowed emissions of TACs, was determined to be environmentally acceptable because of an increase in the EA goals pursuant to section 2.9 and the land use changes and is no longer either industrial property or a public roadway, then the owner or operator of the

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process or process equipment shall notify the District within 30 days of the change in land use and shall comply with the procedural requirements of section 4.11, substituting the date of notification by the owner or operator for the written notification by the District and substituting the change in land use for change in the benchmark ambient concentration.

2.11 If a modification to an EA goal for a process or process equipment pursuant to section 2.3 or 2.6 is approved by the District, then the owner or operator shall periodically re-evaluate T-BAT for the process or process equipment and submit to the District a demonstration, meeting the provisions of section 2.3.2.1 or 2.6.2.1, whether the practices and measures continue to constitute T-BAT. This requirement shall begin not more than 5 years, but not less than 2 years, after District approval of the modification, and thereafter, at an initial time frame and subsequent frequency to be determined by the District when approving the modification. Upon approval of the modification, the requirement to re-evaluate T-BAT and the schedule shall be an enforceable requirement of the applicable District permit for the process and process equipment.

2.12 If the District determines, at any time after the approval of a modification to an EA goal for a process or process equipment pursuant to section 2.3 or 2.6, that an element of T-BAT could be implemented to either achieve compliance or achieve substantial progress towards compliance with the EA goal, then the District shall require the implementation of that element of T-BAT. The District shall notify the owner or operator of its determination and the owner or operator shall submit to the District a compliance plan and schedule for compliance with, or substantial progress towards, the EA goal to be achieved as soon as practicable but not later than 36 months after notification by the District. Upon approval by the District of the compliance plan and schedule, it shall be an enforceable requirement of the applicable District permit for the process and process equipment included in the compliance plan.

SECTION 3 New or Modified Process or Process Equipment that May Emit a Toxic Air Contaminant

3.1 A construction permit required by the provisions of the Part 2 regulations for a new or modified process or process equipment that may emit a TAC shall, except as exempted pursuant to section 3.2, incorporate the following provisions:

3.1.1 The permit conditions shall contain an allowed emission standard for a Category 1 or 2 TAC from a Group 1 or 2 stationary source that has been demonstrated to comply with the environmental acceptability goals of section 2.2, except as provided in sections 2.3 and 2.9,

3.1.2 The permit conditions shall contain an allowed emission standard for a Category 3 or 4 TAC from a Group 1 or 2 stationary source that meets one of the following:

3.1.2.1 The allowed emission standard has been demonstrated to comply with the environmental acceptability goals of section 2.2 except as provided in sections 2.3 and 2.9, or

3.1.2.2 The allowed emission standard has been demonstrated to comply with Section 3 of Regulation 5.01. If the owner or operator chooses this option for compliance, then, prior to issuing the construction permit, the District shall provide an opportunity for public review and comment, and

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- 3.1.3 If determined appropriate by the District, then the construction permit shall require the owner or operator of the new or modified process or process equipment to install, calibrate, operate, and maintain a continuous or intermittent emissions or parametric monitoring system. Applicable records shall be maintained for a period of at least 5 years, made available to the District upon request, and submitted to the District as specified in the construction permit.
- 3.2 Sections 3.1.1 and 3.1.2 shall not apply to a TAC emission that is a de minimis emission as defined in Regulation 5.01 section 1.6.

SECTION 4 Demonstration of Environmental Acceptability and Compliance Plans for Permitted Stationary Sources

- 4.1 The owner or operator of a Group 1 or Group 2 stationary source shall determine, according to the procedures in this regulation, whether the allowed emissions from all processes and process equipment at the stationary source comply with the EA goals levels in sections 2.5.1 to 2.5.3. The determination pursuant to Section 4 is not required for a Category 2 TAC if the owner or operator did not report the emission of that TAC to the EPA for the 2002 Toxics Release Inventory Program. When making this determination, the owner or operator may include the effect on the allowed emissions of a process or process equipment pursuant to a promulgated Clean Air Act §112(d) maximum achievable control technology (§112(d) MACT) standard, provided that the change in allowed emissions and the compliance deadline are identified. The owner or operator shall, for each process or process equipment, submit to the District the results and the supporting documentation of the determination, including, but not limited to, for any Tier 3 modeling, the printed summary, and for any Tier 4 modeling, the printed output summary and, in electronic format, the input and output files, according to the following schedule:
- 4.1.1 For a Group 1 stationary source, the following:
- 4.1.1.1 For Category 1 TACs, by December 31, 20062005, and
- 4.1.1.2 For Category 2 TACs, by March 31, 2008December 31, 2007, and
- 4.1.2 For a Group 2 stationary source, the following:
- 4.1.2.1 For Category ies 1 and 2 TACs, by September 30, 2008, and
- 4.1.2.2 For Category 2 TACs, by September 30, 2009.
- 4.1.3 For cause, the District may extend the compliance date of section 4.1.1.1 by up to 6 months. To be eligible for this extension, the owner or operator of the process or process equipment shall submit all of the information that is available by the compliance date and a written request to the District explaining why the extension is necessary and the actions that were taken to minimize the needed extension.
- 4.2 If the District determines that the concentration of a TAC in the ambient air is, or may be, greater than the EA goal in section 2.8.1 or 2.8.2 and a potentially responsible entity for the emissions of the TAC is identified, then the Board may require the owner or operator of an identified stationary source to submit the information identified in Section 54 of Regulation 1.06 *Stationary Source Self Monitoring, Emissions Inventory Development, and Reporting* and meet the requirements of sections 4.1, 4.4, and 4.5 of Regulation 5.21 on an accelerated schedule. In this case, the District shall notify the owner or operator in writing and shall specify the dates for complying with these requirements.

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- 4.3 If the allowed emissions, or, if the applicable permit does not contain an allowed emission standard, then the potential to emissions, of a TAC from a process or process equipment are determined, pursuant to section 4.1, to exceed one or more of the EA goals levels in sections 2.5.1 to 2.5.3, but the actual emissions do not exceed these EA goals levels, then the owner or operator may request, in writing, that the District revise the appropriate permit conditions to reduce the allowable emissions, or establish an allowable emission standard that is consistent with new source review requirements, specifying the new level of allowed emissions. Upon receipt by the District of the request, the new emission standard may be used for demonstrating environmental acceptability and shall be an enforceable requirement of the applicable permit for the affected process and process equipment.
- 4.4 If the allowed emissions of a TAC from a process or process equipment are determined, pursuant to the provisions of section 4.1, to exceed one or more both of the EA goals in section 2.5.16, and the District has not given approval to exceed those EA goals pursuant to section 2.67 or the EA standards in section 2.5.2 or 2.5.3, then the owner or operator shall submit to the District a compliance plan and schedule for compliance with the applicable EA goals level according to the following schedule:
- 4.4.1 For a Group 1 stationary source, as follows:
- 4.4.1.1 For Category 1 TACs, by June 30, 20072006, and
- 4.4.1.2 For Category 2 TACs, by March 31, 2009December 31, 2008, and
- 4.4.2 For a Group 2 stationary source, as follows:
- 4.4.2.1 For Categoryies 1 and 2 TACs, by September 30, 2009, and
- 4.4.2.2 For Category 2 TACs, by September 30, 2010.
- 4.4.3 For cause, the District may extend the compliance date of section 4.4.1.1 by up to 6 months. To be eligible for this extension, the owner or operator of the process or process equipment shall submit all of the information that is available by the compliance date and a written request to the District explaining why the extension is necessary and the actions that were taken to minimize the needed extension.
- 4.5 A compliance plan required pursuant to section 4.4 shall provide for compliance as soon as practicable but no later than the following dates:
- 4.5.1 For a Group 1 stationary source, the following:
- 4.5.1.1 For Category 1 TACs, December 31, 20082007, and
- 4.5.1.2 For Category 2 TACs, March 31, 2010December 31, 2009, and
- 4.5.2 For a Group 2 stationary source, the following:
- 4.5.2.1 For Categoryies 1 and 2 TACs, September 30, 2010, and
- 4.5.2.2 For Category 2 TACs, September 30, 2011.
- 4.5.3 For cause, the District may extend the compliance date of section 4.5.1.1 by up to 6 months and the compliance date in sections 4.5.1.2, and 4.5.2.1, and 4.5.2.2 by up to 12 months. To be eligible for this extension, the owner or operator of the process or process equipment shall complete as much of the compliance plan as can be done by the applicable compliance date and submit a written request to the District explaining why the extension is necessary and the actions that were taken to minimize the needed extension.
- 4.5.4 The District may extend the applicable compliance date of section 4.5.1 or 4.5.2 that would otherwise be applicable to a process or process equipment that is subject to a

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- §112(d) MACT standard, provided that the §112(d) MACT standard is promulgated at the time that the compliance plan is due pursuant to section 4.4. If the compliance date is extended, then the owner or operator shall timely and fully comply with the requirements of the §112(d) MACT standard. An extension of the compliance date for the process or process equipment subject to this §112(d) MACT standard does not affect the applicable compliance date of section 4.5.1 or 4.5.2 for any other process or process equipment at the stationary source.
- 4.6 A compliance plan and schedule pursuant to the provisions of section 4.4 shall, at a minimum, contain the following milestone steps and dates:
- 4.6.1 Perform an engineering analysis of potential solutions,
- 4.6.2 Prepare a bid package for vendors for equipment,
- 4.6.3 Submit to the District a construction permit application for new equipment and any required modifications,
- 4.6.4 Select a vendor and issue a purchase order for equipment,
- 4.6.5 Commence construction,
- 4.6.6 Complete construction,
- 4.6.7 Prepare and submit a proposed compliance testing protocol to the District for approval,
- 4.6.8 Perform the required compliance testing,
- 4.6.9 Prepare and submit a final compliance testing report to the District for approval, and
- 4.6.10 Submit quarterly progress reports.
- 4.7 After providing an opportunity for public review and comment, the District may approve a compliance plan and schedule from a stationary source and the approved compliance plan and schedule shall be an enforceable requirement of the applicable District permit for the process and process equipment included in the compliance plan.
- 4.8 If the District determines, based upon the information submitted to the District pursuant to section 4.1 or other information, that an EA goal in section 2.8.1 or 2.8.2, taking into account a modification of an EA goal approved by the District pursuant to section 2.6, would be exceeded, then the following process shall be followed:
- 4.8.1 The District shall prepare a proposed Risk Reduction Plan (Plan). The Plan shall set forth the information relied upon in making the determination, the assumptions and calculations in support of the Plan, and the analysis and rationale from section 4.8.2. The Plan shall specify the additional reductions from each stationary source contributing to the exceedance of the EA goal that are appropriate necessary to either achieve compliance with the applicable EA goal or reduce the risk to a level not to exceed a Hazard Quotient, pursuant to section 2.8.1, of 3.0, or a risk, pursuant to section 2.8.2, of 100,
- 4.8.2 In determining the additional reductions, the District shall consider the extent to which each contributing process and process equipment has applied T-BAT, the other factors to be considered in sections 2.3 and 2.6, and other factors necessary and appropriate upon which to base a fair, equitable, and effective apportionment of the responsibility for additional reductions,
- 4.8.3 The Board shall provide an opportunity for public review and comment on the proposed Plan.
- 4.8.3 Following the opportunity for public review and comment, the District Board shall take

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- 508 action on the proposed Plan. District Board action may include, but is not limited to,
509 approval, modification and approval, or denial of the proposed Plan,
510 4.8.4 Within 180 days of District Board approval of a Plan, the owner or operator of each
511 affected stationary source shall submit a compliance plan and schedule that shall, at a
512 minimum, contain the milestone steps and dates identified in section 4.6. Compliance
513 with the required reductions identified in the approved Plan shall be achieved as soon as
514 practicable but no later than 18 months after District Board approval of the compliance
515 plan and schedule,
516 4.8.5 After providing an opportunity for public review and comment, the District Board may
517 approve the compliance plan and schedule from the stationary source, and
518 4.8.6 Any more stringent emission standard, and the schedule for complying with this
519 emission standard, shall be an enforceable requirement of the applicable District permit
520 for the affected process and process equipment.
521 4.9 In the alternative to the provisions of sections 4.1.2, 4.4.2, and 4.5.2 applicable to Group 2
522 stationary sources, the Board may, by regulation, establish specific requirements for a class
523 of stationary sources. If the Board adopts a new regulation or amends an existing regulation
524 in lieu of requiring compliance with these provisions by individual stationary sources in that
525 class, then the District shall notify the owner or operator of each stationary source in that
526 class that compliance with these provisions is not required.
527 4.10 If the District determines that the presence of 2 or more TACs, at concentrations that comply
528 with the EA goals levels in sections 2.2, 2.5, and 2.8, would result in a synergistic or additive
529 toxicological effect that may adversely affect human health, or that there is human exposure
530 from routes of exposure other than direct inhalation, then the District shall prepare a
531 proposed Risk Reduction Plan and the procedures specified in section 4.8 shall be followed.
532 Any more stringent emission standard, and a schedule for complying with this emission
533 standard, shall be an enforceable requirement of the applicable District permit for the
534 affected process and process equipment.
535 4.11 Upon written notification by the District that a benchmark ambient concentration established
536 pursuant to Regulation 5.20 for a TAC that is, or may be, emitted by the stationary source
537 has become more stringent, the owner or operator of the stationary source shall, within 6
538 months of this notification, make a revised determination, according to the procedures in
539 Regulation 5.21, whether the allowed emissions from the stationary source comply with the
540 EA goals levels in section 2.5 based upon the revised benchmark ambient concentration and
541 submit the results to the District. If one or more of these EA goals levels is exceeded, then
542 the owner or operator shall, within 18 months of the initial notification, submit a compliance
543 plan and schedule meeting the provisions of section 4.6, providing for compliance as soon
544 as practicable but no later than 36 months after the initial notification. Upon approval by the
545 District of the compliance plan and schedule, the approved compliance plan and schedule
546 shall be an enforceable requirement of the applicable District permit for the process and
547 process equipment included in the compliance plan.
548 4.12 If a benchmark ambient concentration established pursuant to Regulation 5.20 for a TAC
549 becomes less stringent, the owner or operator may request that an emission standard based
550 upon the more stringent benchmark ambient concentration be revised to reflect compliance
551 with the EA goals levels based upon the revised benchmark ambient concentration. The

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District may approve the request and revise the emission standard, provided that the revision complies with all other applicable requirements and the effectiveness of an existing emissions control measure is not reduced or eliminated.

- 4.13 If the District determines that the concentration of a TAC in the ambient air resulting from any TAC emission of a stationary source is, or may be, greater than an EA goal level in section 2.5 or 2.8, then the District may require emission reductions of that TAC. In this case, the written notification shall include the date for submittal of a compliance plan and schedule to the District and the date for compliance with the EA goals~~levels~~. Any more stringent emission standard and the compliance schedule shall be an enforceable requirement of the applicable District permit for the affected process and process equipment.
- 4.14 If the owner or operator submits a revised demonstration of compliance with the EA goals~~levels~~ in sections 2.2 or 2.5, based upon the use of an EPA-approved dispersion model update or replacement model, that justifies a change to an applicable emission standard for the process or process equipment, then the District may revise the permit emission standard accordingly, consistent with applicable new source review requirements.

Adopted v1/_____ ; effective _____.